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TWO MYSTERIES EXPLAINED.

For many years my family lived in one of the northern suburbs of London. Reduced at last to two members, a sister and myself, we gave up housekeeping, and for some time travelled about England. Tired at length of wandering, we returned to our old neighbourhood, and looked about for a settled residence. One day, while walking down a well-remembered street, we were struck with the appearance of a large handsome corner house, where we recollect perfectly, only a year or two before, had been a greengrocer's shop. We stopped and asked a deferential crossingsweeper how that imposing edifice had grown there, and were told that the shop had been burned down with everything in it, and this house built on its ruins.

We were concerned to hear such a melancholy account, having known the greengrocer well, and we inquired anxiously if there had been any loss of life. 'Troth, my lady, and there was,' said our glib informant—Irish, of course—'for the masther wakened in the night and smelled the fire; and he roused the wife, who had a young baby, and bade her wrap in a blanket, and take the wee thing, and go straight down through the door, for the fire was in a room above; and he rushed up to save the other childer, and he did it, and got them all safe out on the roof of the next house, and so down into the street; but when he came to look for the mistress, faith! she was nowhere to be found; and a boy that was standing by, a frind of my own, tould me that he saw her, from a back yard, stand at the window, and then turn, as though to come down the stairs—and she had a sheet wrapped round her, and the baby in her arms under the sheet; but why she stopped so long, and why she looked out o' window, and why she never came at all, at all, sorra one uv us ever larnt, for the roof feel in, and none durst go near the flames; and, shure enough, next day they found her, and the bit of a baby in her arms still; and whether she staid to gather up her trinkets and such-like, or her sinesse forsook her, or the smoke choked her,

not a living crater can tell, for the sowl went out of her poor body, and niver came back to tell us the rason, and— Thank ye kindly, my lady.' Shocked and distressed at the sad ending of the poor woman, and anxious to escape minute details, we abruptly left the Irish sweeper, and went our way. I remembered the poor greengrocer's wife very well, and had often remarked that her gooseberries were the driest and wholesomest, her raspberries least mashed, her strawberries the least suspicious-looking of any fruiteer's in that district.

Well, in the end we took that very house. It was then autumn; and there we remained the winter, spring, summer, and autumn again; and then came that terribly hard winter of 1866-7. As the frost increased, we found the cold of our bedrooms impossible to bear; so my sister and I agreed to occupy one large room with a southern aspect, and keep a fire in it constantly. The first night that this arrangement was put in practice, we went up-stairs at our usual time, about twelve o'clock. Our bedroom was over the drawing-room floor, and there were other rooms above, where the servants slept. The staircase window on the second floor was exactly opposite our door, on the curve of the upper stair, which formed a small landing. We found our fire burning brightly, and, while my sister stirred and heaped it with coals, I put down what I was carrying, and went back to shut the door. But, instead of shutting it, I stood, holding the handle, staring into the darkness outside, speechless, motionless, conscious of nothing but an unutterable horror; my eyes fixed upon an object not two yards distant, whose appearance alone, without any other reasoning, witnessed that it was no inhabitant of earth.

On the top stair of the flight that led to the upper window stood the figure of a woman, wrapped from head to foot in a thick white covering; rounded and bulky about the shoulders and arms, as if holding a child or bundle; tapering towards the feet, as if but slenderly clothed; every fold, every wrinkle, every curve of the limbs as distinct as we see them in each other under a strong light. But the crowning

horror was this: *through* this perfectly formed and apparently solid figure I distinctly saw the staircase window, the opposite wall, the faint light coming from outside—all as plainly visible as if nothing stood between them and me; and yet there was a woman, tall, broad, enveloped in a thick covering, and placed in a position which ought to have screened everything beyond herself from view.

She stood on the top stair; one foot covered with a stocking, but no shoe, put forward as if about to touch the lower step; and I noticed, with a sickly shudder, that as the fire, stirred and renewed, leaped up in rampant flames, the figure became agitated; moved its foot, now up, now down; swayed a little from side to side; sometimes seemed to step backward, sometimes forward, like one uncertain which way to go; that the arms worked, as if clasping their burden tighter: and still, through it all, came the light from the window, and the outline of the opposite wall; and still I stood staring in silent terror, believing, disbelieving. How could I believe the exploded folly of spirits departed coming back to haunt the spot where they had suffered and been released? And yet how disbelieve my own eyesight?

At length my sister, from the other end of the room, astonished at my silence and the still open door, turned suddenly round, started at my fixed look and face of terror, and exclaimed: ‘Is anything the matter? What are you looking at?’

The sound of her voice was an immense relief to me; it roused my paralysed sensea. Still keeping my eyes fixed on the apparition, I said quietly: ‘Come here a moment; don’t be frightened: there is something strange on the stairs.’

She came hurriedly, but, in spite of my caution, gave a cry of terror as she caught sight of the figure. ‘Good heavens! what can it be?’ she whispered.

‘Don’t move,’ I said; ‘we must watch it. You remember what the sweeper told us about the greengrocer’s wife.’

Silent and shivering we stood, exchanging now and then a frightened whisper. Had any one told me beforehand that I should see such a figure, and inquired how I would act under the circumstances, I should have said: ‘I would walk straight up to it;’ but, standing where I did now, I felt that the distance was not at all too great between it and me, and had no wish whatever to lessen it.

For a long time we watched, and the only change in the figure was one or another of the movements I have mentioned. Meantime, the fire burned low; the phantom became rather less distinct, and remained quiet. We stood with the door only partly opened, and had not courage to put it any wider. At last, with a sudden resolution, I shut it.

‘It is no use looking any longer,’ I said; ‘we shall only terrify ourselves to death, and catch dreadful colds besides.’ Then we sat down by the fire, and discussed the matter. The strange appearance no longer visible, my natural hardihood and disbelief in spectres returned.

‘I don’t care,’ I said, in answer to a remark from my sister: ‘though I have stood and looked at the dreadful thing for nearly an hour, I don’t believe in it. It must have a cause. Perhaps a figure outside the window; light is so deceiving.’

‘But,’ said she, ‘what figure would stand so still for such a time?’

This point I could not argue, but still persisted in attributing it to natural agency. But we could not go to bed easily without looking to see if our supernatural visitor was still at her post. We went slowly and hesitatingly to the door, lingered a moment, and then flung it open to its full extent—the stair was unoccupied; the figure was gone! Much relieved, we closed the door quickly, and betook ourselves to rest.

Next morning we were disposed to laugh at the ghost, as a creation of our own fancy; nevertheless, we grew rather anxious as night came on. I was courageous enough to go up during the evening, and cast a hurried glance at the stairs before I opened our bedroom door; but nothing was there, and I sped down again in great glee, convinced that our eyes the previous night had been fog-bound. But in spite of this, when we went up late, and came to the door to take a last reassuring glance, there was the thing again, in precisely the same attitude, making the same movements, agitated when the fire blazed up, motionless when it burned low.

Time went on, and night after night we watched, till we almost became accustomed to our nocturnal visitor. Notwithstanding the continually renewed fear caused by the sight of it, I had an underlying conviction that it was produced by natural means. *What* means, I could not imagine, for we had tried every possible experiment to find out. We moved the furniture of the room, we placed the light in different positions, we stationed ourselves now at one point, now at another—without effect; the figure stood unchanged.

All this time we kept the matter to ourselves, knowing the foolish fear of servants, and how such a report would spread like wild-fire among our friends, and scare them away from the house. It so happened that just then a cousin came to pay us a visit, and we determined to let her into the secret, partly to prevent her from seeing the figure unawares, and being perhaps frightened to death; partly that she might help us with her opinion and advice. So the first night of her arrival, we brought her into our room; and, having told the facts, and warned her against a sudden fright, took her to the door, and pointed out the spectre. Though so prepared, and utterly sceptical as to anything ghostly, her terror was so great as to alarm us. Talking of ghosts and looking at them are two such very different matters. I still persisted in referring the apparition to natural causes, and though this was my cousin’s belief in theory, practical evidence to the contrary appeared to have shaken her creed to its very foundations. Shutting out the ghastly object, however, to a certain extent restored her self-possession, and then we all three set to work, both by suggestion and experiment, to throw some light on the subject; but to no purpose. The wretched, puzzling, intangible substance, the unreal reality, stood its ground, and mocked all our efforts.

After a time thaw set in; the weather became as warm as it had before been cold, and we dispensed with the fire in our room. That night—O wonder of wonders!—we looked and watched in vain; not a trace of the figure was to be seen. I was more puzzled than ever.

As time went on, and our spectral visitor was

still invisible, we congratulated ourselves on being rid of such an unwelcome intruder, and decided it to have been the chance reflection of some object outside. But snow and frost returned again, and again the fire in our room was lighted; and, casting a glance up the stairs as I prepared to close the door, my eyes fell on the mysterious figure, standing as before on the top step, moving her foot up and down, grasping the burden that she held now firmly, now loosely, in her arms; dilating and agitated when the fire blazed, still as death when the flames fell low. This reappearance was more startling than I cared to acknowledge even to myself. My sister and cousin grew nervous; so did I; we could not convince either ourselves or each other that the phantom had a natural origin. It would be impossible to enumerate the efforts we made to discover the cause of it. Every failure found our spirits a little more shaken, and our minds a little less sceptical as to ghosts and their doings. We grew accustomed to see the shadowy thing on the stairs, and no longer started at sight of it; but the superstitious element in us became strong and active, and we were ready to believe anything.

One night while taking my usual look of mingled curiosity and terror, I observed that the figure had undergone a change—one arm appeared to hang helplessly down by her side. As I was about to call attention to this new phenomenon, I heard my sister say: ‘Why, who has been tearing the blind?’

I turned round quickly. Our windows were furnished with roller-blinds of highly glazed white linen, over which were festooned heavy curtains of dark green. I saw that one side of the blind had been torn away from the nails fastening it to the roller, and had fallen back, leaving part of the window uncovered. Thought is rapid, and some intellectual telegraph connected in my mind the torn blind and the armless figure on the stairs.

‘Stand up on a chair,’ I said, ‘and fasten it as well as you can.’

She managed it easily; and I had the satisfaction of seeing that my ghost was furnished with her proper complement of arms. But to make assurance doubly sure, I said: ‘Draw the blind up for a moment; I will tell you why afterwards.’

She drew it up; and with greater relief and satisfaction than I can describe, I saw the figure disappear gradually; commencing at the feet, finishing at the neck; a shadowy head still remaining. I speedily announced my discovery; and after minute investigation, and much experimentalising and proving, we at last discovered the entire nature and origin of our spectre. And this was it. From the position of the fire-grate, the entire light of the flames fell on the window opposite the door; and when the door was open, this light was again reflected from the dazzling surface of the white blind on to the opposite wall, which formed the curve of the stair, and where stood the window. Every one knows that two festooned curtains will give to the space between them the form of a human neck and shoulders: here was the foundation of the figure; and the curtains nearing each other as they approached the ground, completed the illusion of a long scanty garment. The phantom foot was nothing but the space between the dark drapery terminating in a point. The immense width of the festooned part as compared with the

rest, gave that appearance of bulk about the arms and shoulders; and the head was caused by the reappearance of the light-coloured wall above the curtains. The wall, of course, rose square and shapeless, hence the supposition of a sheet enveloping the figure. We found too, that when the door was opened wide, the reflection vanished; this, I fancy, was caused by the light being diffused, instead of concentrated through a small opening. And the strange movements of the spectre were simple enough. Naturally, the more the fire blazed, the more its light flickered and danced on the window, and sent its dancing and flickering shadow outside the door. But why the reflection seemed to stop short on the landing, instead of being conveyed to the opposite wall, I have never fully satisfied myself. I fancied it to be in some way caused by meeting the light from the staircase window, and so throwing it back upon itself; but this is only my supposition. I leave it to those more learned in the laws of light than I am to settle the matter. Thus every particle of our ghost was explained, even to the head, which remained stationary when all the rest had disappeared. The head being a reflection from the wall, of course never moved when the blind was drawn up.

Having proved our discoveries in the most satisfactory manner, we published the matter among our friends; and many came to look at the ghost, and see it made and unmade; and I have no doubt that some who read this will be of that number, and bear witness to the truth of what I have written. I have been tempted to make this curious circumstance public, knowing on what much smaller grounds houses have gained a reputation for being haunted, to the extreme terror of the inhabitants, and great detriment of the owner. And certainly the remarkable coincidence of the former building having been destroyed by fire, in which a woman and her baby perished, and the spectral appearance of a woman holding a child being visible on the very spot where the poor thing was last seen alive, whenever that spot was illuminated by a strong blaze, was enough to convince the most incredulous. With this experience, therefore, before me, I strongly advise any one who sees or hears of a ghost, to examine carefully all doors, windows, and other means of conveying light, before he believes his eyes or ears; and I think I may venture to predict a natural and simple solution to the most alarming and mysterious apparition.

The second wonderful sight that I witnessed was seen by myself alone, so my readers must be good enough to credit me with a truthful tongue while I describe it.

I was staying at Southsea. Southsea is well known to possess a very clear atmosphere, and sometimes an almost Mediterranean moonlight. I was fond of the moonlight, and slept with my blind up and my window open, to enjoy it. My bed faced the window, and the door of my room was on the right, close to the bed’s head. One night I was restless. Though very tired, I could not sleep. My head was turned rather to the left, and I refrained from moving, hoping so to coax myself into forgetfulness. Finding this useless, at last I turned suddenly round. The strangest sight met me. The top of the door was spanned by a beautiful luminous arch, in colour and shape more

like a lunar rainbow than anything else that I have ever seen. As wonder-stricken and half-alarmed, I stared at this portentous sign, it changed. The arch gradually faded, and was succeeded by a train of fiery figures, to my unpractised eye, precisely like the hieroglyphics which I had seen on Assyrian tombs and other relics in the British Museum and elsewhere. The figures were of all shapes—pointed, curved, hooked, horned, broad, slender, tapering; but all of the same luminous appearance as the arch, though some brighter and some fainter. The most astonishing and awful part of it, however, was, that the figures never remained more than a second after they were formed; they disappeared, regularly and rapidly, as if one hand impressed them on the wall, and the other followed and blotted them out; to be succeeded by new shapes, equally plain, bright, and definite; in their turn melting away, and all so exactly resembling Egyptian and Assyrian characters, that I feel sure had a master of those mysterious languages witnessed them as I did, he would without difficulty and in all good faith have given us an English version of their meaning. I watched this extraordinary sight for a long time. The letters frequently disappeared altogether, and then the arch returned, again to vanish, and be succeeded by new forms of fire. I repeat that I am not a believer in visions, and wonderful and unaccountable as was this one, I still assured myself that it had a natural cause, though invisible as yet to me. I called to mind my former experience of the ghost on the staircase, and determined to hunt out with equal resolution the origin of this phantom light. I looked round and round, but could see nothing in the room reflecting or glittering, nothing but the simple moonlight illuminating the air outside. Finally, I got up, and after carefully searching for any stray moonbeam that might have fallen on some shining substance, and finding none, I looked out of the window, to see if the mystery could be unravelled that way. But there was not a light to be seen anywhere; it was late—or rather early—about two o'clock in the morning, and the entire population of Southsea appeared to be asleep. Moreover, I found that the moon was so far on the right side of the house, that she could not possibly shine into my window; and if, through any unsuspected chink, she did contrive to throw in a ray or two, from her position they must fall on the exact opposite side to where the luminous arch and fiery letters were now shifting and shimmering. Consequently, I was more puzzled than before; and after hunting with infinite care for any possible reflecting medium, and failing to discover any such, I decided that it was a matter beyond my ken, and my best plan was to go back to bed, and try to forget this uncomfortable shining visitor in sleep.

The first part of this resolution I acted on; the second was a failure. Sleep I could not, nor could I keep my eyes off my gleaming, glittering, uncanny-looking neighbour. Suddenly a change took place; the arch seemed to stand out from the wall, and appeared about to descend upon my head. This was too much even for my philosophy. I jumped up in a fright, and retreated precipitately to the other end of the room, watching the movements of the enemy as I went, more than half fearing that it would run after me. However, it did not descend on the bed, but satisfied apparently

with having scared me away, after wavering about in the air for a few seconds, returned to its former station, slowly faded, and a troop of dazzling hieroglyphics rushed into its place. I had now begun to feel, if not positively frightened, at least seriously uneasy. I thought once or twice, should I wake up any one in the house? but it seemed so weak and foolish to disturb people out of their sleep to look at spots of light dancing on a wall; also, I felt sure that I was more likely myself to come at the cause than any one else, seeing how strong was my belief in natural causes and the fantastic power of reflected light. But I could not go back to bed again. The recollection of the descending arch unnerved me. I sat down by the window, opposite the phantom letters, and tried to think of some possible solution to such an enigma. I remembered, when a child, hearing a lady say, that she had once been nearly terrified to death by waking in the night and seeing phosphoric light shining in her room. But this could not be phosphorus, for, in the first place, the description given in no way tallied with my luminescent wall. The light this lady had spoken of was one large patch, dull and reddish in colour; it remained motionless for a few minutes, and then disappeared altogether; the atmosphere at the time being close, heavy, and charged with electricity, and a severe thunder-storm at hand. Now the atmosphere at the present moment was clear as crystal, fresh and pure, the sky a lovely blue, speckled all over with small summer clouds; evidently there was neither phosphorus nor electricity overstepping its bounds this night. What could that strange appearance signify? After thinking over every imaginable possibility, I at last had the boldness to go up and touch it. The letters were not moved, nor was my hand scorched, as I half began to think it might be. I looked again, to see if some wandering moonbeam might not be reflected from some polished surface of glass or china—no; everything was in deep shadow. The looking-glass standing towards the room, and sloped forward, was so dark that I could not even distinguish my face in it. So now I had exhausted all my resources, and was really perplexed how to act. I shrank from going back to bed with that ghostly light playing beside me; yet I could not sit up all night! I was getting very nervous, and I was also getting very sleepy. Even the alternative of calling up some one had passed out of my power, for I did not now fancy approaching the door, more especially opening it; the possibility of some dazzling, flashing object outside seemed to be growing up in my foolish brain. I scolded myself well for my ridiculous fears, nevertheless I kept steadily away from the bed and the door. Again I seated myself at the window, feeling that I should have to wait till daylight for the dancing wild-fire to depart. This would not be very long, for it was the height of summer, and dawn would certainly commence by four o'clock, if not earlier, so I determined to exercise patience till then.

As I sat idle, all the accounts I had ever heard or read of wonderful and mysterious lights came crowding into my mind, and, above all, Bulwer's *Strange Story*, and the horrible 'Scin-Loca' described therein, which nearly gave me a brain-fever while reading it, and I fancied the light began to grow more weird-looking, and a cold creeping shudder passed over me. The dressing-

table stood before the window, and I thought if I could move this, and get more into the recess, I should have, as it were, a closer connection with the outer world ; and if the ‘thing’—I could give it no name—came down from the door and *attacked* me—yes, O strong-minded reader, it had positively come to this—I should prefer jumping into the garden below, at the risk of broken neck and limbs, to fighting with a nasty wriggling, dancing, glimmering ghost, coming I didn’t know from where, and staying I didn’t know for what. It was a ‘happy thought,’ and I instantly began to move the table, casting at the same time a startled look towards the door. Startled indeed ; for as I looked, arch, letters, all disappeared suddenly and utterly !

In my dismay, I put the table back in its place. At once the arch returned, succeeded in a moment by vivid letters. ‘Was it chance ?’ I asked myself. Determined to make sure, I moved the table again ; again the light vanished. ‘It must be something on the table,’ I thought, with an immense sense of relief. I moved off every article, cautiously watching the light ; no result. Last of all, I took up the looking-glass—sudden blank over the door. I put it down again—arch returned. I repeated the experiment half-a-dozen times, to convince myself ; there was no longer a doubt. My ‘Scin-Leeca’ was a very shallow spectre indeed, for it depended on the movements of a looking-glass.

I was so delighted with this discovery, and, moreover, so dreadfully weary with sitting up all night in a state of nervous excitement, that I was tempted to go to bed without ascertaining *how* this puzzling, bewildering will-o'-the-wisp could be caused by a glass on which no light fell. But I would not let myself yield to the temptation, and resolutely set my wits to work to match causes and effects. But for a long time I could discover nothing. It was the glass, beyond a doubt, but in what way ? At last, after turning it in every direction, the frame suddenly swung back, the screw having become loose. Then the whole matter was plain. The glass was supported on a broad plate of polished wood. In this plate, now that the frame sloping backward made it visible, appeared the full moon as clearly as if reflected in water. The plate was large and long, extending almost to the end of the table ; the moon being on the right side of the window, shone, of course, on to the left side of the glass ; and consequently the reflection struck back again on to the door, which was on the right. Perhaps the oblique position the reflection took, partly accounted for the curious shape of the figures. The chance position of the glass, sloped very much forward, had prevented me from seeing the image of the moon before. I found now that the arch was caused by the moon itself, round and bright, shining on the wood ; and the mysterious letters that had so alarmed me were at once accounted for. The sky, as I said before, was flecked with small clouds, which, at short intervals, sailed over the moon ; this broke up her light into pieces ; the portion of her disk left uncovered, being generally of some fantastic shape, which, reflected in the polished wood, was thrown back again to the door in the form of a hieroglyphic of light. This, too, explained the blotting out of the letters. Each little cloud passed, succeeded by another and another, all of different shapes ; and not the moon

only, but the light surrounding her, contributed to the delusion, and formed the unbroken line of letters, some brighter, some paler, according to their distance from the centre of light. Why the image of the moon itself should be reflected in the form of an arch, I must, as in the former case I have described, leave to wiser heads than mine to determine, which I have no doubt they will do easily, having partly guessed myself ; but as my deductions were drawn from anything but scientific reasoning, I think I had better not record them. Neither could I discover or imagine why the arch stood out, or appeared to stand out, from the wall ; it only happened that once, so I had no opportunity of testing the reason.

So the terrible appearance of luminous arch and letters of fire was fully explained ; and, singing to myself an inaudible jubilate, with a light heart, and heavy eyelids, I went back to bed, and slept soundly.

I have determined to give a plain and truthful account of these two unusual and perplexing sights, from hearing people speak with evident superstitious dread of unearthly lights and phantom shapes, which never could be accounted for, seen by themselves or their friends.

Nothing could be more strange than these I have described, or more unaccountable, till fully investigated ; and perhaps their evidence may induce many to search industriously for the cause of any marvellous appearance, which, without such inducement, they would not do ; and if they do search, I feel sure that they will find.

THE HOUSE OF ARGYLL.

Few studies are more interesting than the vicissitudes of great families. The changes recorded of them are more romantic than fiction. We find, for example, the great-great-grandson of Margaret Plantagenet (daughter and heiress of George, Duke of Clarence), a cobbler at Newport in 1637. The late sexton of St George’s Hanover Square, was a descendant of Thomas Plantagenet, fifth son of Edward III. ; and a butcher and toll-bar collector (the former dying in 1855, the latter in 1846) were entitled to quarter the royal arms, as lineal descendants of Edmund of Woodstock, sixth son of Edward I. In the present paper we have to trace the rise and fortune of a noble House, not its decline and fall.

Highlanders like to trace the Campbell ancestry back to Darmada O’Duihne, nephew of Fionn, king of the Fenians, and so back to Art or Arthur, son of the High King of Ireland. But there is no occasion to go into this mythical part of the pedigree ; we might as well gravely consider if the Macnabs had a boat of their own at the Flood. For all practical purposes, the line commences with Sir Colin Campbell of Lochawe, who was the first important member of the family. Alexander III knighted him in 1280 ; and in 1291 he was one of the nominees of Robert Bruce in his contest for the crown. He had performed a signal service to Alexander, for in 1263, when Haco of Norway brought one hundred and sixty ships into the Firth of Lorne, Colin brought such levies to the aid of the king, that the invader was defeated

mainly by them. In 1294, he was slain in a contest with the Lord of Lorne (head of the rival clan, the Macdougalls), on the western side of Loch Awe.*

Sir Walter Scott has unfortunately perpetuated a great error respecting this Sir Colin, for he gives the head of the family for the time being the title of 'Mac Callum More' (a descendant or son of the great Malcolm), instead of 'Mac Cailean Mor' (a son of the great Colin). Mr Dunn Smith, in *Macmillan*, points out that a more absurd or unfortunate corruption of the original could hardly be conceived, for the Duke of Argyll owes the chieftainship of his clan and his domains to the gallant Colin, a fact which Sir Walter's appellation (in which he was followed by Lord Macaulay) would entirely ignore. A writer in the *Times* (October 26, 1870) observes, that in speaking Gaelic, the heads of some numerous families are distinguished from others of their name and kin by a special patronymic, often as familiar in the Highlands as a national title of honour is elsewhere. Few of these are heard out of the Highlands, and very few people anywhere understand them. If we wish to give the present Lord Lorne a Gaelic name, he would be called 'Mac Mhic Cailean Mor,' or son of big Colin's son.

Edward I. is said to have ordered the records of the great families of Scotland to be destroyed whenever they could be found, so that much of the early history of this family is uncertain. Unlike the Douglases, Hamiltons, and Scotts, the family engaged little in border warfare. They made several fortunate marriages, and generally managed to be in good favour with the reigning monarch. They became very numerous, so much so that the old Scottish proverb says: 'Crows and Campbells are everywhere.'

The Macdougalls, Lords of Lorne,† dwelt on the other side of Loch Awe, and were hereditary foes of the Campbells. The former clan was not so fortunate as the latter, for the Macdougalls opposed themselves to the government of King Robert Bruce, who relentlessly humbled them. Their lands were forfeited, and great portions enriched the rival House of Campbell, the then head of which, Sir Neil of Lochow, was a great favourite with the king, and married his sister, the Lady Mary Bruce. By this alliance with royalty, the family rapidly advanced in wealth and influence. Considerable portions of the Macdougall estates came to the House of Stuart; and John Stuart of that House was created a Lord of Parliament by

* The present Duke of Argyll has erected an obelisk to his memory in the ancient burial-ground of Kilehrenan, near which spot the gallant knight is supposed to have been buried. It bears this inscription:

CAILEAN MOR,
Slain in the
Seang of Lorne,
A.D. 1294.
Erected by
GEORGE DOUGLAS CAMPBELL,
Eighth Duke of Argyll,
Twenty-eighth Baron of Lochow.
1866.

+ Fergus, Lorne, and Angus, descendants of the great Celtic rulers of Ireland, are supposed to have settled in the Highlands in the sixth century. St Columba is said to have been the great-grandson of Lorne. The name was formerly *Latharna*, pronounced *Laurna*, afterwards Lorne. The Lorne district is thirty miles by ten, and contains some of the most beautiful scenery in Scotland.

James II. in 1445, as Lord Lorne. Seven years afterwards, the king made Sir Duncan Campbell (Lord of Argyll) first Lord Campbell. He was one of the wealthiest barons in the kingdom, and was called *Donnachadh-an-aigh*, or 'Duncan the Prosperous.'

Stuart, first Lord Lorne, married a daughter of Robert, Duke of Albany; and Sir Archibald (second son of Sir Duncan the Prosperous), who continued the line of Campbell, married Margery Stuart, sister of Lord Lorne's wife. Three daughters were born to the House of Lorne; and Colin Campbell, son of Archibald, united the two Houses by marrying the eldest, Isabel, his cousin.

This Sir Colin was by James II. (1457) advanced to the dignity of Earl of Argyll. By his fortunate marriage* he gained a portion of the lands formerly possessed by the Macdougalls and Stuarts; but the lordship of Lorne went to the brothers of John of Lorne, the Stuarts. Walter Stuart, however, in 1469, exchanged the lordship with Colin, the Earl of Argyll, for the lands of Kildonning, Baldoning, &c. Thus the broad lands of Lorne passed into the Campbell family, who now possessed the lands on both sides of Loch Awe, from Loch Fyne, on the east, to the shores of the Atlantic on the west.† The earl took the title of Lord Lorne, and added to the Campbell arms the ancient device of the chiefs of Lorne, a galley; this has been supposed to establish the *Viking* origin of the latter. The Dunolly estate and a few farms were all that remained to the once proud race of Macdougall.

In the reign of James III., the earl went to England on an embassy to negotiate a truce with Edward IV., which he successfully accomplished. Again, in 1475, we find him on the same peaceful mission; and in 1483, the king gave him the lands of Pinkerton. We then find him going to France with several others to renew the ancient league with that crown. He was made Lord High Chancellor on his return. His son, Archibald, the second earl, commanded the vanguard on

Flodden's fatal field,
Where shivered was fair Scotland's spear,
And broken was her shield,

and was killed with the flower of the Scottish army. Sir Walter Scott tells us how

Far on the left, unseen the while,
Stanley broke Lennox and Argyll;
Though there the western mountaineer
Rushed with bare bosom on the spear,
And flung the feeble targe aside,
And with both hands the broadsword plied.

His eldest son, Colin, third earl, was named one of the four councillors to James V. in 1525, was Lieutenant of the Borders, Warden of the Marches, obtained a grant of the lordship of Abernethy, and secured for his family the hereditary sheriffship of Argyllshire, and Master of the Household. He married Joan, daughter of the Earl of Huntly.‡

* The other two heiresses of Lorne married Campbells; one of these (the knight of Glenorchy) was founder of the House of Breadalbane.

+ The earl's town of Inverary was, in 1474, made at his request into a burgh. The castle is the principal seat of the family.

‡ Playfair's *Family Antiquity*, 1809, vol. iii.

Archibald, fourth earl, distinguished himself at Pinkie, and was the first of his high rank who embraced the Protestant religion at the beginning of the Reformation. His son Archibald (fifth earl), married Lady Joan Stuart, sister of Mary Queen of Scots, and daughter of James V. Playfair points out that if he had had children by her, *one of them would have succeeded to the English throne on the abdication of James II.* Sir Colin Campbell of Buchan became the sixth earl. Archibald, the seventh earl, took part in several military engagements, and died in 1638. Archibald, eighth earl, was created by Charles I. Marquis of Argyll in 1641. He joined the Parliament in the civil wars ; and at the Restoration was accused of high treason, and beheaded, May 27, 1661, though declaring, 'that from his birth to that moment he was free from any accession to the death of King Charles.' His son did not follow in his father's footsteps, but was an enthusiastic royalist. The king remitted to him his father's forfeiture ; but he had the earldom, not the marquiseate. The parliament at Edinburgh, in 1681, proposed a test to be taken by persons possessed of offices. The courtiers proposed that princes of the blood should not take it ; for opposing this, Argyll was actually arrested, tried for high treason, and condemned to die.* He made his escape as a lady's page to Holland, and afterwards invaded England, proposing to act in concert with the Duke of Monmouth. He was taken, and in 1685 beheaded. His son, the tenth earl, came over to England with King William from Holland in 1688. In 1689, he administered the coronation oath for Scotland to William III.

Macaulay points out that the Campbells had become in the Highlands, at this time, what the Bourbons had become in Europe—'A peculiar dexterity, a peculiar plausibility of address, a peculiar contempt for all the obligations of good faith, were ascribed, with or without reason, to the dreaded race. "Fair and false, like a Campbell," became a proverb. It was said that Mac Callum More after Mac Callum More had, with unwearyed, unscrupulous, and unrelenting ambition, annexed mountain after mountain, and island after island, to the original domains of his house. Some tribes had been expelled from their territory, some compelled to pay tribute, some incorporated with the conquerors. At length the number of fighting-men who bore the name of Campbell was sufficient to meet in the field of battle the combined forces of all the other western clans.' We have quoted this description to shew the powerful position of the family. The historian points out that even when the ninth earl had perished, his children fugitives, the castle of Inverary garrisoned by strangers, and the shores of Loch Fyne laid waste by fire and sword, the opponents of the House of Campbell were not satisfied. Then came the triumph of the Revolution. In 1701, the head of the House was created Duke of Argyll, and Marquis of Kintyre and Lorne ; but with all his honours, this is the estimate Macaulay forms of him : 'Argyll was, in personal qualities, one of the most insignificant of the long line of nobles who have borne that great name. He was the descendant of eminent

men, and the parent of eminent men. He was the grandson of one of the ablest of Scottish politicians ; the son of one of the bravest and most true-hearted of Scottish patriots ; the father of one Mac Callum More, renowned as a warrior and as an orator, as the model of every courtly grace, and as the judicious patron of arts and letters ; and of another Mac Callum More, distinguished by talents for business and command, and by skill in the exact sciences. Both of such an ancestry and of such a progeny, Argyll was unworthy.'

The second duke, who succeeded in 1703, made his first campaign with Marlborough a year before. When only twenty-three (in 1705), Anne made him Lord High Commissioner, to represent her in parliament. The queen was so pleased with him that she made him in that year an English peer, by the title of Baron of Chatham and Earl of Greenwich, and, five years after, Knight of the Garter. In 1718, he became Duke of Greenwich. Pope speaks of him as

Argyll, the state's whole thunder born to wield,
And shake alike the senate and the field.

At his death, in 1743, the titles of Duke and Earl of Greenwich became extinct, and his brother Archibald succeeded as third Duke of Argyll. Like his brother, the latter served under the Duke of Marlborough, but his ambition was to shine in the political world. When only twenty-three, this gifted man was made Treasurer of Scotland. When the Union was effected, he was chosen one of the sixteen peers for Scotland in the British parliament. He collected a fine library, and built the present seat of the family, Inverary Castle, in 1748, after a plan by Adam.* The house is built of chlorite slate, and is in the castellated style. The hall is decorated with a number of muskets which were 'out in the '45.' Mary Queen of Scots visited the castle in 1563. Among the portraits is one of the unfortunate Marquis of Argyll who was beheaded in 1661 ; and of his son, who was also beheaded ; and several others by Gainsborough. The last-mentioned duke died in 1761 ; and, as he left no issue, John Campbell, son of the Honourable John Campbell of Marnmore, became fourth duke. The eldest son of the latter (fifth duke), was, in 1766, raised to the dignity of a peer of Great Britain as Baron Sundridge of Coombank, Kent. His second son, as sixth duke, succeeded in 1806. In 1810, he married the daughter of the Earl of Jersey, but had no issue. His brother John succeeded in 1777, as seventh duke. By his second wife (Joan, daughter and heiress of John Glassel, Esq., he had two sons, John Henry, who died 1837, and George Douglas (born April 30, 1823), the present duke, who succeeded in 1847. It is unnecessary to enter into the career of this duke ; suffice it to say that

* Burns, when once visiting Inverary, found the inn filled by a party visiting the duke, and he could get little attention. On one of the inn windows, therefore, he wrote these lines :

Whoe'er he be who sojourns here,
I pity much his case,
Unless he's come to wait upon
The lord their god His Grace.
There's naething here but Highland pride,
But Highland cauld and hunger ;
If Providence has sent me here,
"Twas surely in his anger.

* 'I know nothing of Scotch law,' said Halifax to King Charles, 'but this I know, that we should not hang a dog here on the grounds on which my Lord Argyll has been sentenced.'—Macaulay's *History of England*, i. 538.

he is worthy of his ancestors. In 1844, he married Lady Elizabeth Leveson Gower, eldest daughter of the second Duke of Sutherland; and his son, the Marquis of Lorne (John Douglas Sutherland), husband of the Princess Louise, was born in 1845.

WON-NOT WOODED.

CHAPTER XXI.—A DOLL'S HOUSE.

'POVERTY, my friends,' observed an ancient (and modern) divine, whom I had once the pleasure to hear preach, 'is attended with many inconveniences; and more particularly is this true,' he added, sinking his voice to the most confidential tone, 'of *abject poverty*.' It was evident that he believed himself to have given the congregation 'a tip,' which they could not easily have derived from any other source. However, if mistaken on that point, this good clergyman's statement was undoubtedly a correct one. The poverty which so often forms the subject of eulogium, is, in fact (or ought to be), not poverty at all, as the poor understand it, but simply moderate means; the desire of him who prayed: 'Give me neither poverty nor riches; feed me with food convenient for me, lest I be full and deny Thee, and say, who is the Lord? or lest I be poor, and steal, and take the name of my God in vain.' This shrewd sentiment is worth all the romantic rubbish about cultivating literature on a little oatmeal, all the philosophic indifference to comfort, all the pseudo-religious delight in dirt and horse-hair. That riches harden the heart, and make gross the soul, is very true; but not more so than that 'the destruction of the poor is their poverty.' To have to live from hand to mouth; to have to look at every sixpence before you spend it; to be 'cutting and contriving' all day long to make things fit, as though life were a Chinese puzzle; to struggle and strain, as though one was strapping a portmanteau, at making both ends meet—this is a condition of affairs that seldom bears good fruit. Slavery to mammon, when mammon represents a quarter of a million, is disgusting and despicable; but slavery to a four-penny piece is also to be deprecated. Of course, the question of what is riches, and what is poverty, is a relative one; but moderate means may be well defined as, Means with a margin. It is indeed pretended that 'he who owes no man,' or who 'lives within his income,' is in a sense rich: but if this is only *just* effected, if, though there be no lack, there is nothing over, this envied individual is, in effect, as one in mid-ocean in a ship which is warranted to float only so long as the 'sea disturbance' never exceeds five. Upon the least emergency, and when the balance of expense is the least disturbed, like the poor *Captain* with its too scanty freeboard, down he goes.

Now, Martha Barr's income was one of those so exactly calculated to eke out for the ordinary twelve months, that leap-year was a strain upon it. Groceries, butcher-meat, loaves—not fishes, for fish was dear at Brackmere—were items for which pecuniary provision was made beforehand to a nicety; in short, everything was 'constant,' except her charities, which varied as the demand for them, and these put her to the sorest straits of all. The addition, therefore, of Mabel to her little household was a matter of the gravest importance,

a difficulty, however, which her grateful guest, fortunately for her own peace of mind, had no means of estimating. 'Bellevue Terrace,' in which Martha resided, consisted, indeed, of the very smallest houses—to be called such—that Mabel had ever seen. When you entered the lobby, a single stride would have taken you into either of the three rooms that formed the basement story; when you entered the dining-room, and held the door open, the other tenant of that apartment, if such there was, had to retreat into the bow-window. At the top of the stairs, 'the landing' might be said to be dangerous, it was so narrow; you seemed to be in a ship's cabin, surrounded with lockers, which were the bedroom doors. One of these chambers had been the drawing-room, but it had been fitted up as a sleeping-room for Mabel, and a bright little bower it was. She understood at once that this transformation had been accomplished, and taxed her hostess with it.

'You promised me,' pleaded she, 'that no difference should be made on my account, and the first thing you have done is to deprive yourself of your drawing-room' —

'A hall of state, my dear,' whispered Martha confidentially, 'which always oppressed my spirits, and gave my excellent Rachel endless trouble. The attentions she lavished upon that room in the way of feather-brushing and yellow gauze—just as if the looking-glass had been a peach-tree, and the flies blackbirds—quite exhausted her. Moreover, my darling, now we have no reception-room, there will be an excuse for not entertaining quite as much—though we shall not be without our visitors, I daresay—and generally for drawing in our horns.'

The phrase so exactly fitted the little house, that Mabel could not help smiling.

'But I am sure, Martha,' urged she, 'that that little room next to yours would have suited me capitally, and been quite big enough.'

'Hush, hush! That is my good Rachel's,' whispered Martha; 'we could not turn her out, you know. She can't sleep down-stairs, because it is so lonesome, although, indeed, there are plenty of black beetles. I am sure my Rachel has taken to you already.'

'That is very good of her,' said Mabel. 'I think I'll just step down, and help her up with the luggage.—Nay, Martha'—for her hostess blocked the way with a reproving finger—'I am not going to be a fine lady any longer, I do assure you, who can do nothing for herself' —

'Hush!' interrupted Martha in the same cautious tone; 'you and I will bring up your box, and so on. My good Rachel is a most estimable person, and invaluable in a house—quite a *chef* in the way of cookery, and would make a bed with any woman in England; but she is a little peculiar.'

At which mysterious word Martha pursed her lips, and nodded her head, in a manner that led Mabel to apprehend that her good Rachel was a little mad. That she was 'peculiar' was positively certain. In the first place, she had only one eye; and if she had really 'taken to Mabel,' that organ was not an index of her mind, for it had regarded her with unmistakable malevolence. This domestic was tall and angular in figure, and very grim, save for an occasional convulsion of the features, with one of which—supposed to be a smile of welcome—she had received her mistress on her return.

'All well, Rachel?' the latter had cheerily inquired.

'The cat's ill, ma'am, and the beetles be woss than ever: it's my belief that they've disagreed with him.'

'Well, well, we must try something else to get rid of them,' had been her mistress's conciliatory reply.—'You see I've brought you our promised visitor.'

At this pointed reference to the duties of hospitality, there was an expression in Rachel's face such as ensues in others only upon mortal struggle with a fish-bone. Then she had vanished down the kitchen stairs, for the obvious reason, that there was no room for her elsewhere, but with the air of a patriot unjustly exiled.

'The fact is, if my good Rachel has a weakness,' continued Martha, 'it lies in a mistaken sense of duty. She leaves nothing undone—that I will say—which ought reasonably to be expected of her, but she is very punctilious about what it is "her place" to do. Hence arises this little difficulty; and now I'll leave you to unpack.'

The difficulty in question being the getting Mabel's leathern box up the cabin stairs, accomplished upon Martha's part—who insisted upon being the one to go backwards—only by infinite perseverance, and a determination of blood to the head.

While Mabel was still engaged in unpacking, she heard a bell ring, or rather tingle, just as those very little bells are wont to do when struck by a marble in the child's game of cockamaroo, or by a ball in the centre hoops of croquet. She concluded at once that this was Martha's timid summons to Rachel. It seemed to say: 'I do want you, my good creature; but, pray, do not put yourself out. If you are pleasantly engaged, forgive me: I am quite distressed at having tingled.' Presently there was a knock at her door, so soft, that it might have been the twin-sister of the other sound.

'My dear, I hope you are nearly ready. Did you not hear the bell? I have no doubt Rachel has got something nice and tasty; and if it spoils, why, that will naturally'—

'I did hear a bell; but I thought it was you, ringing for Rachel.'

'No, dear; no, my child. The fact is—here Martha hesitated nervously—'I don't ring for Rachel; that is—not my *bedroom* bell. You see it brings her up all those stairs so unnecessarily, once to hear what one requires, and again to go and get it. I find it more convenient to come out on the landing, and call over the banisters for what I want. Now, don't you think that a good plan?'

Mabel thought it an excellent plan—for Rachel, and smiled approval.

'I am so sorry to be late, dear Martha.'

'Don't mention it, my dear; or at least, perhaps, it would be just as well to mention it—to explain how it happened, so that she will understand that it is not likely to occur again. Not, of course, that any apology is due to Rachel: that would be ridiculous; she knows her place much too well. Oh, my goodness, pray make haste! How she is ringing that bell!'

Here the tingle ceased, and some small hard object seemed to strike upon the oil-cloth that paved the hall.

'Dear me, she has rung the tongue out,' cried Martha in alarm. 'I've only known her do that once before. My good Rachel is a most invaluable person; but just now and then—especially in the autumn—a little hasty in her temper. One can't have everything, however, and it is foolish to expect perfection.'

It would have been exceedingly foolish, or, at all events, very disappointing, to have expected perfection in Martha Barr's retainer; had that lady, in fact, been a person devoted to social ambition, the fiction of her keeping a domestic servant at all, in the person of Rachel, might have been set down to sheer boastfulness and pride. Their relative positions seemed rather to be those of lodging-house keeper and of tenant behindhand in the rent—such a high-handed virago was Rachel, such a diffident humble suppliant in all respects was her nominal mistress. The latter had originally engaged this myrmidon, because she was ill-favoured and chronically out of place; and obligation working in Martha's case (as in some good folks it does) as favour works with others, she had grown more and more her debtor, until there was no possibility of release. What underlay her misplaced attachment for this cyclope was, without doubt, the conviction, that if she cast her forth, Rachel would starve; but she had really contrived to persuade herself that the woman had good qualities, and had so defended and stood by her—for her foes were many—that like some commercial house which has made advances beyond reason to a failing merchant, she now continued her support for the sake of her own credit almost as much as for that of her client. It was curious, but by no means contrary to human experience, that Martha Barr was herself an excellent domestic manager, and recognised a good servant or a bad one at a glance in other households; and the reputation that she enjoyed in this respect among her friends, had been, and was, of incalculable advantage to Rachel, who would otherwise have, long ago, in that court which sits in perpetual judgment upon 'the greatest plague of life'—the jury of matrons—been pronounced an uncertificated bankrupt.

At supper the chops were burned outside, and would have suggested the idea that they were 'done to a cinder,' whereas the cook had prepared what gastronomers call 'a surprise,' inasmuch as the interior was almost raw; while the potatoes had not only that attribute so praised by Irishmen, of having 'the bone left in them,' but were throughout of the consistency of a green apple. The plates, however, it must be acknowledged, had seen more of the fire than their contents; and the hostess took occasion to remark, that 'if there was one thing more than another for which Rachel could be relied upon, it was for having the plates hot.'

If the viands had been ever so tempting, it would not have made much difference to Mabel, whose appetite was far from keen.

'You have gone through a good deal to-day, my darling,' said her kindly hostess, 'and yet you eat like a sparrow. I must insist upon your having a glass of wine. It is not usual for me to have wine, as you see, from Rachel not having put out the glasses; but this one occasion must be an exception—not that it is a gala night to you, God knows, my child. I can guess very well what you

are thinking about, and I feel for you with all my heart : this is a poor house and scanty fare.'

'Martha !' cried Mabel, starting up, 'what do you take me for ? Why are you so cruel and unjust ? When have I shewn myself capable of entertaining such base thoughts as you impute to me ?'

'Base thoughts, my darling ; stuff and nonsense ! Of course there is a mighty difference between the rectory and this doll's house ; you may not feel it to-day, because your mind is busy with farewells and regrets ; but you must needs feel it in time. Well, I can give you but one thing as good and genuine as even the rectory was wont to offer—here's the glass, dear ; and see, I pour myself out another to the brim : it's a welcome, my dear Mabel. Your health, dear child, and welcome, from the bottom of my heart.'

To see Martha Barr drain her glass (it was filled up to the cut instead of the brim, and contained about two thimblesful), then clasp Mabel's hand, was quite a bacchanalian spectacle.

'It's good wine, my child, and fit to drink such a toast as this in, for it came from your own father's cellar. He sent me a dozen of it when I was recovering from an ague, twenty years ago ; and there is but another bottle left. That shall be opened on the day when I see you married, Mabel, to the man you love—for you will love some man some day, lassie, for all you shake your pretty head ; it is not reasonable that you should wither away alone through life, like me and Rachel. There's a good girl ; but you should drink it up to the last drop, as I used to tell you in old days, when you used to be so naughty with your senna : it's a sin and a shame to waste such wine as that. Mr Simcoe says there is nothing like it in all Brackmere—not even at the *George*, where the Princess Charlotte once put up at—and he's an excellent judge. Upon my life, I don't know what to do about it,' added Martha, standing irresolute, with the decanter in one hand and the stopper in the other.

'Don't know what to do about *what*, my dear ?' asked Mabel, wiping from her eyes the tears evoked by the kindly welcome of her old friend.

'Why, about giving a glass of this wine to Rachel. It seems so ill-natured not to offer a drop to the good creature on an occasion of this sort, for she's a kind sympathising soul. But then she has often told me that spirits disagree with her dreadfully, and perhaps it may be the same with port wine. You have no idea what a delicate liver my excellent Rachel has !'

CHAPTER XXIII.—FOREBODINGS.

Brackmere is a small but growing town, at the mouth of a great tidal river, but boldly asserting itself to be a marine resort. Some of its more enthusiastic partisans (who have also house-property in the place) have even gone to the length of calling it Brackmere-super-Mare ; but the post-office authorities have not admitted this claim, and enemies have freely translated the agnomene by 'in the marsh,' and 'in the mud.' The fact is, Brackmere is too near a great manufacturing 'centre of industry' to be fashionable ; it is got at too easily to have a high reputation ; and the cheapness of its general accommodation attracts Excursionists. From its very beginning—with the sublime exception of a visit from the Princess Charlotte—the

place was exclusively middle-class ; devoted to the interests of that enormous section of the British public which dines early, and takes 's'rims' with its tea. Its terraces, streets, and crescents consist of houses that in hardly any case exceed two stories in height, and which are packed with children from June to September as closely as herrings in a barrel. In laying out the ground, these tenements, which are all alike, were so disposed that the spectator who beholds them for the first time ejaculates : 'Why, this is a penitentiary !' From wherever he places himself, he beholds every individual house, and every individual house beholds him. The man who desires privacy would obtain it in a hip bath in Fleet Street more completely than in perambulating Brackmere.

The first idea of the stranger is, that he has been brought down to this spot for exhibition. He burns and blushed to find himself the focus of a thousand windows. It is some time before Reason reassumes her sway, and he says to himself : 'I comprehend : this arrangement has been made in order to secure for every tenant an uninterrupted view of—well—the Sea.' At high-tide, and for two hours after at Brackmere, there is a splendid expanse of ocean ; but suddenly—like some miracle of the Red Sea accomplished lengthwise—the waters vanish, and give place to an expanse of mud. After a heavy dinner at two, the newly arrived Paterfamilias looks forth from the window, and congratulates himself that he has acceded to his wife's wishes, and brought the dear children to the seaside, instead of putting his brutal jest into practice of letting them have 'Tidman's sea-salt and "the shingles" at home,' in place of it ; blinks, puts his handkerchief decently over his face, and enjoys his nap. His forty winks—which lasts forty minutes—over, and—Hi presto!—Open, sesame!—Abracadabra!—he wakes, and finds himself in the Fen country. The hearth-rug has been an enchanted carpet, upon which, like Prince Houssain, he has been transported inland.

The ships that enlivened the prospect have disappeared with their natural element. 'No wonder they calls it an offing,' says the astonished citizen. Where they rode, or 'walked the waters,' is now by comparison dry ground ; where the red buoy bobbed and rolled, there is now a juvenile population (white) cockling where the cockle floated, which now lies upon its side, as though prostrated by the phenomenon that has taken place. Sheep-folds appear, which are the sides of oyster-beds (but how is he to know *that*?). The pier, which is of such amazing length that it is said to be used to teach perspective, has become an unnecessary viaduct. Ponies and donkeys urge (or are urged upon) their wild career where the sea-horses reared and foamed. The flower which the dark unfathomed caves of ocean bear—the periwinkle—is disclosed in myriads ; but 'it is forbidden to pick the flowers,' since (in addition to their native fragrance) they have the peculiarity of being edible, and are sold at Brackmere by the bushel, and eaten by the peck. A flower-farm is here a periwinkle farm. The police have orders to take into custody all persons (except tailors) who look as if they liked periwinkles, and are found with a pin in their coats ; notwithstanding which, full many a wily youth will fill his pockets with bread and butter and saunter beneath the pier (on the piles of which, like peaches on a garden-wall, these crustacea grow),

and lunch to repletion. To our visitor, these marauders appear to be taking innocent recreation, as under an arcade. There is no sign of ocean to be beheld in any direction; but, seizing a telescope, the enchanted wretch descires in the extreme distance a thin watery line, which is the diminished river. It is said to have been while at Brackmere during low-tide that the greatest of philosophic poets composed his ode On the Intimations of Immortality :

Here in a season of calm weather,
Though inland far we be,
Our glass still sights that intermittent sea
Which—

meaning the favourable representations of which by partisans—

brought us hither.

We see the children sporting on the shore,
But hear the mighty waters rolling there no more—

or words to that effect. Twice a day, a transformation scene takes place at Brackmere such as is witnessed only at those theatres (such as Sadler's Wells) which have the advantage of 'real water'; but let me add that no scenery devised by Telbin was ever more beautiful.

The commerce of the world is borne upon the bosom of that Pactolian stream, rich with the spoils of nations, which sweeps by Brackmere's shores. Whole argosies 'drop down,' or are tugged up it, daily; and even and anon, a countless fleet of lesser vessels, wind-bound, or waiting for a wind, lie off it, far as the eye can reach; the red-sailed fishing-boats, with sweeps for oars, thread in and out their baffled line; and along the shore creeps the deep-laden barge, with its tall store of corn or hay to feed the city's cattle. There are no wastes of sand about Brackmere, nor those bare rolling downs which at so many sea-side places seem to imitate the waves they fringe. The meadows stray down to the very water's edge, so that stranger cows mistake it for fresh water, and endorse, with complaining low, the fiat of 'the high analytical authority,' who, the local guide-book tells us, has pronounced it to be 'as saline as the sea at Margate.' The trees grow close to the very marge, from which they tentatively thrust forth their roots, like nervous bathers. On one side of the fence are sheep; on the other, ships; here is a steeple, and there a mast; the 'smell of the sea' mingles with the scent of the clover; and the time is told to the herdsman by the bell on shipboard, as audibly as by the church clock on the hill.

It is at night, however, that Brackmere looks its best: in the moonlight, and when the tide is in, it is indeed no longer picturesque, but absolutely sublime. The stars in the heavens are outnumbed by the stars upon the deep—the lights upon the foreheads of the stately ships. Mabel gazed upon them from the window of her little room, ere she went to rest that night, in wonder. And as she gazed, there fell upon the silence a solemn sound—the throb of the great heart of some steamship which was pulsing its way from the other side of the world, perhaps from China, whither Ju. was gone. (That China which seemed almost as far as yonder heaven, where her father dwelled. Should she ever see him more, or the face of a single friend, save one, again?) Along that silent

highway sped the eager-eyed, panting messenger; she watched it thread its way through those fixed stars, that were the anchored ships, and past the harbour-light at the pier-head, and round the Foreland, where the Pharos stood and flashed a thousand farewells.

The Pharos?—yes, that was what Mr Flint had called the ancient light-house which stood by that they went to see at Oldborough.

How short a time ago, and yet how long! The place where she had first seen Richard, and where he had saved her life. O cruel, cruel Richard, to have done so! Then she kneeled down beside her bed, and prayed to be forgiven for that thought. For why should she desire death, and hate her life, merely because it loomed before her without colour? Dull, and gray, and chill, it would be doubtless; but it was duller, grayer, chiller to many another. What had Martha Barr, for example, to live for? or what had she ever had in the way of pleasantness? and yet she had trodden her appointed path with firmness, and though it was so narrow, God himself had been her fellow-traveller, and walked with her all the way. She would take heart, and do the like, or strive to do so. Martha was poor, and yet so enriched by the blessings of the sick and sorrowful, that with them she had bought 'a mansion incorruptible' in the glorious city; and if she died to-night, so much the better, save for those who had such cause to cry: 'Would that she had staid with us!' But as for herself, she was a wicked, ungrateful girl; were there not thousands destitute, and orphaned like herself, who had no home, no friend, but many and many a smiling enemy! She was not ignorant of such cases, having come across them in her village visitations. Who was she, that she was not to feel thankful for food and raiment, and the friendly roof that sheltered her! Though her lot was henceforth to be cast in the by-stream and back-water of life, was there not as much scope for duty there, as in the main current? She would do her duty, she would be helpful, and self-reliant. Her kind hostess should find her a prop instead of a burden. Perhaps she might even do something, if it were ever so little, towards keeping house. Her lace-work had been praised of yore, when praise was more thought of than pudding; it was quite likely that she might make a little money by that; and how nice it would be to pour it into Martha's astonished hand!

She did not shrink from work of any sort; she had made up her mind, to begin with, to 'do' her own room, so that Rachel should have as little extra trouble on her account as possible. Employment was what she needed. Nor was it the melancholy of her future lot that cast its shadow upon her; on the contrary, what she dreaded more, were its possible amenities. From certain hints which Martha Barr had let fall—by no means in the way of apology—Mabel had a presentiment that she was to be the victim of much tea-table festivity. She had not relished this description of dissipation even at home; and at Brackmere it was likely to be much more wearisome. There was a certain Dorcas club, of which she had heard a good deal; and it had filled her with the liveliest apprehensions. Gossip, when it was good-natured, was very dear to Martha Barr, though she was averse to what is termed 'going into society'; and Mabel would be expected to share all her pleasures. Well, it should henceforth be her endeavour to do so, or to seem to

do so. But she felt that this would not be easy. Often had Ju. and she agreed together (judging from their old friend's own description of her Brackmere acquaintances) that 'dear old Martha must know some very queer people.' Their father had once explained to them, that as the fixed stars of literature attract about them satellites of an inferior order and doubtful light, so the genuinely good are surrounded by spurious varieties of the religious world: the 'earnest,' the 'cheerful,' and the 'serious.' But while, in the former case, the great man is far from being deceived (having usually a very accurate perception of his own merits, and especially of his relative importance with respect to others), in the latter, humility and the charity that imputes no evil are apt to blind the judgment. 'Much as I love our good Martha, girls,' said the rector, between whom and the self-styled religious world there was certainly 'no love lost,' 'I would not stay a week among her Brackmere friends for a bishopric. I am much mistaken if they are not greatly given to solemn fudge.'

Parson Denham had a morbid dislike of boredom, and especially of that particular development of it which is called being 'preached to death.' But this was far from being Mabel's case; she made no pretence to being easily *ennuyée*, and she had listened to so many histories of 'how I caught the rheumatics' from village dames, to fear what Brackmere gossips could do unto her; besides, her present circumstances were much too serious to admit of her attaching importance to such a mere inconvenience. But what she would have desired above all things now was solitude, or at most the companionship of Martha only; and this she had a foreboding would be denied to her. Martha had openly expressed her intention of 'not permitting her dear child to mope,' which she felt to be a menace, involving not only what Fred used to call 'tea-fights' and 'muffin-worries,' but all the horrors of 'serious' hospitality. These might not be pressed upon her immediately; her recent trouble would doubtless afford her protection from them for the present at the hands of her kind hostess, unless she took it into her head that they were for her good. But there was a woe within her, if not so sharp as her regret for her dead father, more likely to endure, and of which Martha knew nothing: the burden of a hopeless love. She would have to carry that about with her into scenes of gaiety (or some substitute for it), and to smile with alien lips and an aching heart.

ACROSS THE WALNUTS AND THE WINE.

In after-dinner talk
Across the walnuts and the wine.—TENNYSON.

AMONG the smaller phenomena produced by the late gigantic war is to be seen that confusion of politics which our national anthem invokes against the Queen's enemies. When the conflict began, since France was governed by an emperor, and Prussia was supposed to have constitutional tendencies, our Liberals were inclined to take the latter side (independently of the immediate cause of quarrel, about which there were scarcely two opinions), and our Conservatives the former. But now that the situation is reversed, and we have (at the time we write, at least) a republic in France and an emperor in Germany,

our after-dinner politicians are sorely put to it. Consistency may be 'the virtue of fools,' but the 'eating of words' is distasteful even to the wisest. Thus, even Professor Puzzleton now ceases to be positive, and is obliged to content himself with being plausible; while men of no opinions, and professional jokers, such as Mr Funnidog, who have never committed themselves to either side, are masters of the position. The 'telegrams to our Augusta'—now more august than ever—are become a painful subject to him; and he is mercilessly twitted about the 'moderation' of her William.

In vain he explains his favourite's altered conduct by the intoxication of victory, and falls back upon the poets. 'You must understand,' says he, 'that

To play at the game whose moves are Death,
Maketh a man draw too proud a breath.'

'In other words,' replies Thunderbomb, 'the animal' [thus the irate Colonel speaks of the breath of Germany's nostrils] 'does not know on which side his tail hangs.'

'Where does that admirable quotation come from?' inquires Parson Grey.

It is evident that he does not mean the Colonel's, and the Professor is only too happy to elude his foes by satisfying our divine's curiosity. He repeats the whole of that wondrous poem, never so significant as now, while we listen with rapt looks, and seem to hear the very

Sound of the drums grow less and less,
Walking like carelessness off from distress;

to see

Steady! steady! the masses of men
Wheel and fall in and wheel again,
Softly as circles drawn with pen.

The battle is fought before our eyes, more visibly than ever painter drew it, from the very first, when—

A gaze there was, and valour and fear,
And the jest that died in the jester's ear,
And preparation noble to see
Of all accepting mortality—
Tranquil Necessity gracing Force;
And the trumpets danced with the stirring horse;
And lordly voices, here and there,
Called to war through the gentle air:
When suddenly, with its voice of doom,
Spoke the cannon 'twixt glare and gloom,
Making wider the dreadful room.

'I have read Homer,' says Parson Grey in an ecstasy, 'but this is the first time I have had a battle brought home to me.'

'A great university scholar like yourself,' observes the Professor (now himself again), 'should surely be more careful in his eulogies. Is it possible, then, you can regret not having made acquaintance with a poet of your own land, who has not even age to recommend him! Pooh!'

Death for death! The storm begins!
Rush the drums in a torrent of dins;
Crash the muskets, gash the swords,
Shoes grow red in a thousand fords;
Now for the flint, and the cartridge bite,
Salt to the palate, and stinging to sight;
Muskets are pointed they scarce know where;
No matter! murder is cluttering there;
Reel the hollows: close up, close up!
Death feeds thick, and his food is his cup.

No time to be "breather of thoughtful breath"
Has the giver and taker of dreadful death.
See where comes the horse tempest again—
Visible earthquake, bloody of mane!
Part are upon us with edges of pain,
Crashing their spears, and twice slaying the slain.
Victory, victory! man flies man;
Cannibal patience has done what it can—
Carved and been carved, drunk the drinkers down,
And now there is one that hath won the crown.
One pale visage stands lord of the board,
His trumpets blow strength, his trumpets neigh—

[There is none to say him "nay" except his trumpets,' interpolates Funnidog. We should have frowned him down, but the Professor adds good-naturedly: 'They and his horse.]'

They and his horse, and waft him away;
They and his feet with a tired proud flow,
Tattered escapers and givers of woe.
Open, ye cities! Hats off; hold breath!
To see the man who has been with Death;
To see the man who determinates right
By the virtue-perplexing virtue of might.
Sudden before him have ceased the drums,
And lo! in the air of empire he comes.'

'By Jove!' exclaims the Colonel (meaning 'By Mars'), in a burst of literary enthusiasm, 'I should like to know the name of the fellow who wrote that?'

'Why, it's Hunt, of course,' said Mr Bitter Aloes, savage with long-enforced silence. 'Don't you remember that Radical fellow with the white hat who made such a fuss at the time of the Reform Bill?'

But the Professor took pains to correct that mischievous remark, and to introduce the Colonel to a knowledge of the gentle Leigh; by far the most unappreciated poet that ever wrote English verse.

'Why, there is not a picture by Wouvermans that breathes the breath of battle half so naturally,' cried the Colonel: 'I saw two or three of them in the *Exhibition of the Old Masters* yesterday.'

'Quite true,' echoed Housewife; 'but what a glorious Exhibition it is! This is the second year that our great folks have lent the contents of their galleries, while they say there are materials equally good for half-a-dozen such displays. And yet we are told that the English do not love art.'

'Nay, rather, they love it not wisely, but too well,' observed the Professor. 'They care for the name more than the thing itself; for the reputation more than for the merit. Can anything be more ridiculous than this outcry about "the doubtful Turner"? If it is as good as Turner, what does it matter though it be by Jones or Robinson?'

'Or by Bismarck,' interrupted Mr Funnidog, 'who will not be an Old Master, they say, even though he's *Claude Lorraine*.'

'It's a question of the siller,' observed Mr Macpherson, disregarding this miserable joker. 'A Turner is worth muckle, and a Robinson not a bawbee.'

'But why not?' argued the Professor, 'supposing they are equally good. That is just what I complain of in your Art public. There is no Reason in their admiration, but only prejudice and idolisation of great names. A bad picture by an old master is held in far higher estimation than a good one by a new hand. Why, on earth—I say on earth, for I hope it does not happen elsewhere—should such things be? It is only judges of art, as

they call themselves, who are so purblind. Nobody admires *Count Robert of Paris* because it was written by Sir Walter Scott: but because Sir Joshua Reynolds, forsooth, has perpetrated the portrait of a post-boy pulling on his gaiters—he calls it a Colonel, and it's No. 160 in the catalogue—let no dog bark, or venture to growl "Rubbish!" Now, there are a score of similar monstrosities in that Exhibition—a very beautiful one, as a whole, I own—and yet because they're old, I am not to say they are ugly!'

'I hope, my dear Professor,' said Mrs Housewife slyly, 'that you will always be restrained by that consideration when speaking of me.'

'My dear madam, there are some women'—and here he bowed—to whom age only adds new beauties, as though the finger of Heaven, which is always beckoning to them, had touched and transfigured them. There are many such transferred to canvas in the Exhibition of which I speak. On the other hand, there are some old women hung up there who ought to be Signs. There's "a matured sketch," for instance, by no less a person than Peter Paul Rubens, called *The Rape of the Sabines*, the figures in which are very mature. Lord Macaulay said of it, that if the ladies (none of whom can weigh less than seventeen stone) were like the portraits, two things astonished him in the historical transaction: first, that any man should desire to carry them off; and secondly, that any man should be found strong enough to do it. Again, there's a picture by Giorgione, No. 227, which is really deserving of the highest credit, both from its prophetic inspiration and its good morals; it obviously prefigures a modern Refreshment Saloon, where the young ladies are waiting at the counters to serve the public with drink and viands, while, at the same time, it deprecates all meretricious attraction by representing those damsels as ill-favoured as possible.'

'Plain, though coloured,' assented Mr Funnidog. 'But if you want to see what malice a painter is capable of towards the nobler sex, contemplate the portrait of Lord Spynie, No. 231, and with about that number of tags to his knee-breeches. It is by far the most humorous picture of the whole lot. Next to that (for fun) is the *History of Virginia* by Filippino Lippi, doubtless priceless from its antiquity, but which would, even as a modern work, have had its value as an illustration to a comic periodical. In the *Angels Hovering in the Air*, No. 278, by Botticelli, there are also fine strokes of humour. One has heard of "an angel in the house;" but three angels on the roof of a house have certainly not been heard of since the year 1511, when the great work in question was painted. There are also two angels by Il Moretto (Nos. 293 and 295), both evidently taking "sensation headers," whose attitude should be studied by all muscular Christians.'

'My dear Funnidog,' expostulated Mr Bitter Aloes, 'art, or at least high art, is too sacred a subject to be made a jest of. Everybody but yourself is conscious of the impropriety of doing so. I was standing opposite to that dead brown picture, No. 274, and observed to a friend that it looked as though it were sepia. "Sir," observed a bystander with grave face, who had just referred to his catalogue, "you have judged rightly: it is *The Triumph of Scipio*." I bowed my acknowledgments.'

'Well, well, you may make fun of anything,' observed Housewife; 'but an hour in that Exhibition rightly spent is worth weeks of ordinary life. To see *Arundel Mill* by Constable, is, for instance, to be transported into the country, and anticipates the summer; to watch the waves of Ruysdael is to be at the sea-side; while, if humanity attracts you rather than landscape, you may behold youth made eternal by the brush of Gainsborough in that portrait (No. 154) of his nephew, Edward Gardiner, in my opinion the tenderest and most graceful that was ever drawn, and which puts, by contrast, even the famous *Blue Boy* in the cold shade.—If you have anything cynical to say about *that, Aloes'* (for that gentleman was already parting his thin lips), 'I had rather not hear it.—Come, let us go up-stairs.'

'Why, one would really think he had "loaned" the picture, and wanted to sell it,' muttered Aloes, as we adjourned to the drawing-room.

Here we found my godson—for the Housewives are not so unwise as to bring their boy into dessert, to the hurt of his own health and the interruption of their guests' conversation—and the Professor and he at once foregathered as usual.

'Now, Tom,' said he, 'I've got a couple of riddles for you.'

'New ones?' inquired the artless child; 'or like that *Jack and Jill* one?'

'This is a boy that will be eaten by lions!' ejaculated the Professor. 'I'll write a story-book, and make you the wicked character of it, young sir, I will. How dare you! "If they be not old to thee, what matters it how old they be," as Master Suckling (another boy who was too clever by half) expresses it. I don't know whether they are new or not; but, so far as I know, they have never been put in print. The first is a pretty one.

'Divide a hundred and fifty by nought; add two-thirds of ten; so ends my riddle.'

'Why, if you divide anything by nought, it makes it nothing,' growled Mr Bitter Aloes.

'Does it?' rejoined the Professor. 'Macaulay's schoolboy (only he was classical, and not mathematical) would have been whipped for such a display of ignorance. You may learn some day, Aloes, unless you mend your ways, that infinity is not nothing. C is a hundred, is it not, and L is fifty; divide them by nought, and we get COL. Add two-thirds of ten, and then we have COLEN. SO ends my riddle—COLENSO.'

'The second is a little sum in arithmetic, so it is useless for Aloes to attempt it.'

'Two clerks are offered an addition to their salaries: one has a rise of five pounds every year, and the other of ten pounds every two years; which of them has the better bargain, Master Tom, and by how much?'

THE MONTH: SCIENCE AND ARTS.

THE Commission appointed to consider the question as to whether the government gives sufficient encouragement to scientific education, though still collecting evidence, are beginning to think about their Report, which will be a very voluminous one. Among the gentlemen recently examined was Sir Edward Sabine, President of the Royal Society, who knows more about scientific expeditions, and

the 'encouragement' that has been afforded to them, than any other man in the kingdom. In his evidence will be comprised more than half a century of knowledge and experience. The impression gains ground that the result of the inquiry will be to shew that government have not neglected science, but that their aid has been given in too unsystematic a manner to be very beneficial. The proper bestowal of aid in future becomes an important question. Some persons think that the best way would be to appoint a Minister of Education, who should have under him a permanent Council of scientific men, to whom all questions involving technical or scientific considerations should be referred. Had such a Council been already in existence, it is asserted that the catastrophe of the ship *Captain* would not have occurred; for either such an 'unstable' ship would not have been built, or if built, would not have been sent to sea with tall masts and a great spread of canvas.

It can hardly be denied that some further spread of technical education would be advantageous, if only to afford mental occupation to thousands of persons who at present waste on trivialities whatever of mental faculty they possess. Why should not intelligent youth take interest in the fact, that in the purification of gas at the gasworks from which towns are lighted, great quantities of tar and ammoniacal liquors are produced—that from this tar, benzole is extracted by chemical methods, and is used largely in the preparation of india-rubber manufactures, and asphalt for paving, and tarpaulings for roofs; that nitrobenzole supplies a favourite perfume, and almond-flavour in cookery, and contributes aniline, the base of many beautiful colours recently introduced in wearing-apparel and decorations; that from the same source, carbolic acid is derived, the best of disinfectants, and picric acid, a powerful explosive substance; and that, finally, there are the refuse ammonia and sulphur, which, as fertilising elements, can be restored to the earth? When it is known that all these and more are locked up in a lump of coal, and may be released by heat and chemical operations, curiosity may be stimulated, and a motive implanted for further inquiry.

The Institution of Naval Architects, being desirous to keep pace with the times, have published a list of subjects on which they ask their members to write papers which may be published in their *Transactions*. Further knowledge is wanted on the best construction of ships of war for attack, defence, and the protection of commerce—the effect of the use of torpedoes on naval construction—the best form of ship for the merchant service—the results of the best modern practice in ocean steam-navigation—the best way of economising labour, and of communicating orders on board ship—the best mode of steering, and many other subjects related to navigation. From this it will be seen that though we are the best ship-builders in the world, we have yet much to learn, and are trying to learn it. Even when our

'possible' is done, there will be plenty left for coming generations to do; a fact which may perhaps pacify those who fear the exhaustion of the inventive faculty in England.

Mr Sorby, F.R.S., has been trying to discover what it is that produces the various tints in autumn leaves, and has made out a number of interesting facts which we may notice on a future occasion. For the present, we mention that he finds the purple colour of turnip-leaves to be the same as that of the purple flowers of the common garden stock; that the dark brown tint of heath is the same as that of the purple beech; while that in the dark leaves of ivy seems to correspond with the deep pink colour which in autumn gives rise to so many exquisite tints of red and scarlet.

A paper *On the Unequal Distribution of Weight and Support in Ships*, by Mr E. J. Reed, read at the Royal Society, is well deserving of consideration, and bearing as it does on the present controversy concerning ship-building, it is of unusual importance. Mr Reed shews that the books which have long been regarded as authorities on the question are at present of little value, because of the great use now made of iron and steel in the construction of ships, and of steam as propelling power; and he has, with great labour, made a series of calculations by which the strains, and the liability to fracture of four different classes of ships, may be ascertained. The first class is represented by the royal yacht, *Victoria and Albert*, a paddle-steamer of great length, fine lines, heavy weight of engines, boilers and coal in the middle, while the ends are very light. The second class—long, fine-lined ships, with great weights from end to end, is represented by the *Minotaur*; the *Bellerophon*, a short ship, with full lines and very concentrated middle weights, represents the third class; and the *Invincible*, with weight of armour still more concentrated, the fourth class. All these ships are more or less unsafe; and Mr Reed has endeavoured, in the principles now laid down, and the calculations on which they are based, to make it clear that errors of construction may be avoided in future. During the reading of his paper, he stated that the *Victoria and Albert* (and vessels of her class), when resting on the crests of two waves, is very liable to break in two in the middle. The loss of the *President*, one of the early steamers between Liverpool and New York, nearly thirty years ago, was, in all probability, occasioned by a sudden break. The probability in this instance is heightened by the fact, that when the engines were first put into the ship, the floor-line was depressed eighteen inches amidships by their weight. After Mr Reed's statements, it appears easy to account for the loss of all the steamers which have gone down at sea and left no trace behind. They have broken in two, either when their centre rested on the crest of a single wave, or when the two ends were uplifted at the same moment on two rising waves. Another contingency is found in the fact, that ships are sometimes built of steel. The plates are thin, and will bear a prodigious amount of pulling-strain; but they will not bear the shock of pressure as received from waves. A steel-built steamer, constructed for the blockade-running trade during the late war in America, was seen to break in two and go down at the mouth of the Mersey. We trust that the Institute of Naval Architects, and Mr Reed, with

his new tables of calculations, will be able to save us from such calamities in future.

In the recent eclipse expedition, an excellent photograph was taken of the corona which is seen streaming forth all round the sun during totality. On subsequent examination of this photograph, the image of the planet Venus has been discovered among its rays; and in this we have an example of the power of photography in representing objects which the eye has not seen and could not see. Another example has been recently described by Mr C. F. Varley. He was making experiments by passing a current of electricity through a vacuum tube, the results of which were indicated by strong or faint touches of light about the poles. In one instance, although the experiment was carried on in a dark room, the light was so feeble that it could not be seen, and the operators doubted if the current were passing. But at the same time photography was at work, and in thirty minutes a very good picture was produced of what had taken place. This is a remarkable fact. Indeed, it borders on the wonderful that a phenomenon invisible to the human eye should have been, so to speak, seen by the photographic lens, and a record thereof taken by chemical agency. It is highly suggestive, and we may anticipate that it will be turned to good account by practical philosophers.

In our last Month, we drew attention to a discussion on steam-boilers which had taken place at a meeting of the Institution of Mechanical Engineers. It was there shewn that neglect and explosion may be regarded as cause and effect; and it is clear that whatever lessens the risk must be worth consideration. One means of avoiding or diminishing the risk has been made known at a subsequent meeting of the same Institution—a new invention, the 'Warsop Aero-steam Engine,' which accomplishes the object, inasmuch as its boiler, by a simple yet ingenious contrivance, is kept clean, and free from that thick crust or 'fur' to which all boilers are more or less liable. This is done by fixing pipes pierced with holes along the bottom of the boiler, inside: these pipes are connected with an air-pump, which forces in a stream of hot air, and this air escaping through the holes, mingles with the water, keeps it in a state of agitation, and facilitates boiling and the generation of steam. The cohesion of the water is diminished by the rising of the hot air through it; boiling takes place at a lower temperature than in ordinary circumstances; and the heat of the air being six hundred degrees, and in direct contact with the water, becomes equivalent to a greater extent of heating-surface. The effect of all this is, that no deposit takes place on the inside of the boiler, and that a considerable amount of fuel is saved: in other words, that with the same quantity of coal the engine will do from twenty to forty-five per cent. more work when the hot-air injection is turned on than when it is cut off. Trial has been made both on land and at sea, and always with advantageous results. The captain of the *Fuh-le*, a screw-steamer that went out to China, states, that when the combined air and steam were used, there was a saving of thirty per cent. in the fuel. Moreover, on examination of the boilers on arrival at Ceylon, they were found to be quite clean inside; while a vessel which made the same voyage with ordinary boilers was delayed some days for removal of the thick crust of salt with which they were burdened. The hot air

and steam have yet another advantage, for where they are used, there is never any 'priming' of the boilers.

From these few particulars, some notion of the importance of the Warsop Aero-steam Engine may be gathered. It is an invention which no doubt admits of further developments and elucidations. The complete explanation of the advantage attending the combined use of hot air and steam has not yet been made out; but it is supposed to be affected in some way by the condensation that takes place within the cylinders. Many a mind will find pleasure in trying to discover the solution: meanwhile, we mention that the inventor of this new engine is Mr George Warsop of Nottingham.

The industrial resources of Ireland, as many readers know, have been much written and talked about. We are glad to learn that one of them has of late been worked, and put to profitable use. In the northern part of the county of Antrim there are miles of what geologists call 'black band ironstone,' and of hematite, or red ore, similar to that found in Cumberland. Of these two valuable minerals, more than eighty thousand tons were shipped last year to be smelted in England; but this quantity is now to be exceeded. The demand for iron and steel grows larger every year; and some of the enterprising men of Ulster have made up their minds to aid in satisfying that demand by converting the iron on the spot where it is dug. Less than a ton of coal is required to convert a ton of ore; so, instead of sending the ore to England, coal will be fetched from England, and the country between Carrickfergus and the Giants' Causeway is to become busy and black with smelting-furnaces, forges, and rolling-mills. If Ireland is to be 'saved,' there can be no more promising way to do it than by fair rivalry in work and enterprise with other countries.

It was stated at a recent meeting of the Odontological Society, that during eight months of last year, nitrous oxide gas had been administered in two thousand one hundred cases at the Dental Hospital; that operations had been performed without occasioning pain to the patients, and that there appeared to be no limit in age to the use of the gas. It had been administered to infants and to persons ninety years of age with equal success. A new anaesthetic compound called Ethyldien Dichlorid had been introduced from Germany, but it appeared to be less useful than the nitrous oxide.

Some naturalists argue that the migrations of insects and creeping things must always have taken place by land, as it would be impossible for them to cross great breadths of water. Mr Wallace, in his anniversary address to the Entomological Society, combats these arguments, and gives facts in support of his views. Living beetles have been caught at sea nearly twenty miles from shore. Swarms of locusts fly from Africa to Madeira, 300 miles. Mr Darwin once caught a locust 370 miles from land; moths captured 260 miles from the coast of Portugal, have been exhibited at a meeting of the Zoological Society; and recently the captain of a whaler caught a white butterfly 400 miles from the Azores. It was vigorous, for on being placed in a drawer, it laid eggs. From these and other instances, Mr Wallace infers, that under favourable circumstances, insects would be able to cross even greater expanses of ocean.

THE COMING OF SPRING.

The winter-time is past and gone,
The time of silent death,
And the grateful earth is quiet
With the south wind's gentle breath.
In the half-shaded woods, and on
The sunny banks, again
The primrose buds are wakening
To the soft call of the rain;
And 'mid the pale palm-willow bloom
The bees' continuous hum,
And the thrush's song from out the copse,
Tell that the Spring is come.

Beautiful Spring! beneath her smile
The air grows warm and bright,
And rivulets through cowslip-fields
Run laughing to the light;
In shady meadows, day by day,
The delicate cuckoo-flowers
Open their silvery cups to catch
The mild descending showers;
And deep within the budding hedge
His nest the goldfinch weaves,
Where the honeysuckle's winding sprays
Are set with tender leaves.

By cottage-doors the butterfly,
The earliest of spring,
Above the golden crocus-beds
Stayeth his trembling wing;
And by old ponds the daffodil
Is bowing to the breeze,
That stirs in grassy lanes the boughs
Of clustering hazel trees;
And on the lonely mountain-side,
By wood-paths mossed and gray,
And far up on the pasture-slopes,
Gleameth the daisy's ray.

And now in gardens spreading far
Round antiquated halls,
With broad clear moats reflecting back
Smooth turf and terraced walls,
The dark yews wear a fresher green,
And sweet at early dawn
The scent of hyacinths floats forth
O'er walk and dewy lawn;
And cool winds, that at even-time
Down the long alleys pass,
Lay the blossoms of the almond-tree
In crowds upon the grass.

Bright, blessed Spring! thy coming bids
A thousand thoughts arise,
Beautiful as the pearly light
Of thine own changing skies.
We pluck thy wild up-glancing flowers,
And wander by thy streams,
And thy sunshine brings to us again
The joy of vanished dreams;
For down the vista of past years
Faint harp-like echoes ring,
Borne to our hearts upon thy breath,
O loved and lovely Spring!